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EXAMINER

REFAI, RAMSEY

ART UNIT	PAPER NUMBER
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2154

DATE MAILED: 05/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/817,958

Applicant(s)

CHEN ET AL.

Examiner

Ramsey Refai

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☒ Claim(s) 10 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. Responsive to Request for Continued Examination (RCE) received on April 25, 2005.
Claims 1-10, 13-18, and 20 have been amended. Claims 1-20 are presented for examination.

Claim Objections

2. Claim 10 is objected to because of the following informalities:

In line 3, "sercie" will be taken as ~~service~~.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.
4. Claims 1, 13, 14, 17, and 18 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The limitations: *"without registering the first agent"* in claim 1, line 5-6 ; *"without having the first agent registered with the second domain service bus"* in claim 13, line 6-7; *"no other send-message service"* in claim 17, lines 1-2; and *"without registering agents in the first group"* in claim 18, line 8 are not described in the specification to enable one skilled in the art that the inventor(s) had possession of the claimed invention.

Also, in claims 1, 14, 17, and 18, the limitations: *"without registering the first agent"* in claim 1, line 5-6 ; *"without registering agents in the first group"* in claim 18, line 8; *"without having the first agent registered with the second domain service bus"* in claim 13, line 6-7; *"no other send-message service"* in claim 17, lines 1-2; and *"does not require a centralized coordinator"* in claim 14, lines 3-4 are negative limitations. These claims fail to comply with the written description requirement. Regarding negative limitations, the MPEP states:

2173.05(i) Negative Limitations

"...

Any negative limitation or exclusionary proviso must have basis in the original disclosure. If alternative elements are positively recited in the specification, they may be explicitly excluded in the claims. ... The mere absence of a positive recitation is not basis for an exclusion. Any claim containing a negative limitation, which does not have basis in the original disclosure, should be rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement.

..."

5. Claim 15 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term *"diversity problem"* in claim 15 is a relative term, which renders the claim indefinite. The term *"diversity problem"* is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would

not be reasonably apprised of the scope of the invention. The claim is indefinite because it is not known how the system addresses an interface diversity problem.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1-4 and 6-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Aggarwal et al (U.S. Patent No. 6,415,318).

8. As per claim 1, Aggarwal et al teach a method for enabling communication between a first agent in a first domain (**Figures 2-3, organization A**) and a second agent in a second domain (**Figures 2-3, organization B**), the first domain having a first domain coordinator (**messaging server**) and a first domain service bus (**Figures 2-3, bridgehead server**) and the second domain having a second domain coordinator (**Figures 2-3, messaging server**) and a second domain service bus (**Figures 2-3, bridgehead server**), the method comprising:

a) registering the first domain coordinator with the second domain service bus without registering the first agent (**column 2, lines 23-45, Figure 2-5, and column 7, lines 28-62; messaging server**); and

b) providing communication between the second agent and the first agent via the second domain service bus, the first domain service bus and the first domain coordinator (**Figures 3-4, and column 8, line 19-column 9, line 59; client A sends a message to client B via bridgehead server A, bridgehead server B, and messaging server B**).

9. As per claim 2, Aggarwal et al teach :

i) providing a client-side interface for a send-message service that can be employed by other agents in a different domain to communicate with the, first agent agents (**column 3, lines 4-37 and column 7, lines 6-27**); and

ii) employing the client-side interface for the send-message service to facilitate communication between the second agent and the first agent (**column 3, lines 4-37 and column 7, lines 6-27**).

10. As per claim 3, Aggarwal et al teach:

i) directing a message from the second agent to the first domain coordinator, which serves as a point of presence for the first agent (**column 2, lines 23-45 and lines 54-66**);

ii) the first domain coordinator receiving the message and forwarding the message to the first agent (**Figure 3, column 8, line 19-column 9, line 59, column 2, lines 23-45 and lines 54-66; messaging server transmits message to client**);.

11. As per claim 4, Aggarwal et al teach the first domain coordinator is a point-of-presence for communication directed to the first agent by agents external to the first domain (**Figure 3, column 8, line 19-column 9, line 59, column 2, lines 23-45 and lines 54-66**).

12. As per claim 6, Aggarwal et al teach d of claim I wherein the second domain service bus is an HTTP service bus (**column 6, lines 22-36**).

13. As per claim 7, Aggarwal et al teach wherein the second domain service bus provides one or more of dynamic firewall transversal services, access control services, security services, billing services, authentication services, authorization services, and or other predefined infrastructure services (**column 7, line 53-column 8, line 55 and column 2, lines 23-66**).

14. As per claim 8, Aggarwal et al teach the coordinator provides one or more of naming services, resource directory services, or send-messages service (**column 2, lines 24-66, Figures 3-4, and column 8, line 19-column 9, line 59**).

15. As per claim 9, Aggarwal et al teach comprising:

invoking the send-message service, wherein the send-message service is provided by the second domain service bus and employing a local naming service to forward the message to the first agent (**column 2, lines 24-66 and column 7, line 53-column 8, line 55**).

16. As per claim 10, Aggarwal et al teach invoking the send message service comprises specifying a domain name and receiver agent name (**Figure 4, column 2, lines 26-45, column 9, line 40 – column 10, line 26**).

1. As per claim 11, Aggarwal et al teach the first agent and the second agent communicate in a publish and subscribe mode (**column 3, lines 4-37 and column 8, lines 50-55**).

17. As per claim 12, Aggarwal et al teach the first domain is a first enterprise and the second domain is a second enterprise (**column 2, lines 14-23, Figure 2, and abstract**).

18. As per claim 13, Aggarwal teach a system for enabling communication between agents in different domains comprising:

a) a first domain service bus in a first domain and a second domain service bus in a second domain for providing infrastructure services (**Figures 2-3 and column 2, lines 24-66**);

b) a first domain coordinator in the first domain having a send-message service that is registered with the second domain service bus without having the first agent registered with the second domain service bus (**column 2, lines 23-45, Figure 2-5, and column 7, lines 28-62; messaging server**);

c) a first agent in the first domain and a second agent in the second domain, wherein the second agent sends a message directed to the first agent by employing the send-message service of the first domain coordinator (**Figures 2-3, column 3, lines 4-37 and column 7, lines 6-27**), wherein the first domain coordinator provides a point-of-presence gateway for receiving

messages directed to the first agent and forwarding the message to the intended the first agent
(**Figure 3, column 8, line 19-column 9, line 59, column 2, lines 23-45 and lines 54-66;**
messaging server transmits message to client).

19. As per claim 14, Aggarwal et al teach delivering messages between agents based on service invocation and the infrastructure services and wherein the system does not require a centralized coordinator (**Figures 2-4, column 8, line 19-column 9, line 59, column 2, lines 23-45 and lines 54-66**).

20. As per claim 15, Aggarwal et al teach the first agent communicates a plurality of messages with the second agent across domains by invoking the send-message service (**column 3, lines 4-37 and column 7, lines 6-27**), and wherein the system provides a point-of-presence approach to address the an interface diversity problem (**column 2, lines 24-66 and column 7, line 53-column 8, line 55**).

21. As per claim 16, Aggarwal et al teach the first agent is required to keep only a client-side interface of the first domain coordinator in order to communicate with other agents in the first domain (**column 3, lines 4-37, column 7, lines 6-27, column 2, lines 24-66 and column 7, line 53-column 8, line 55**).

22. As per claim 17, Aggarwal et al teach wherein no other send-message service need be registered with the second domain service bus to enable agents external to the first domain to

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communicate with every agent in the first domain (**column 3, lines 4-37 and column 7, lines 6-27**).

23. As per claim 18, Aggarwal et al teach a method for enabling inter-enterprise agent communication comprising the steps of:

a) grouping agents into a first group in a first domain having a first domain service bus and grouping agents into a second group in a second domain having a second domain service bus (**Figures 2-5**);

b) assigning a coordinator to the agents in the first group (**column 2, lines 23-45, Figure 2-5, and column 7, lines 28-62; messaging server**);

c) registering a send-message service of the coordinator with the second domain service bus without registering agents in the first group (**column 2, lines 23-45, Figure 2-5, and column 7, lines 28-62; messaging server**);

d) the coordinator receiving messages from the second domain; wherein the messages are directed to a one of the agents in the first group (**column 2, lines 23-45, Figure 2-5, and column 7, lines 28-62; messaging server**); and

e) the coordinator forwarding the messages to an intended recipient agent; wherein the second domain service bus provides inter-enterprise communication services between the first domain and the second domain (**Figure 3, column 8, line 19-column 9, line 59, column 2, lines 23-45 and lines 54-66; messaging server transmits message to client**).

24. As per claim 19, Aggarwal et al teach the first domain is disposed in a first enterprise and the second is disposed in a second enterprise (**column 2, lines 14-23, Figure 2, and abstract**).

25. As per claim 20, Aggarwal et al teach the second domain service bus provides one or more of dynamic firewall transversal services, access control services, security services, billing services, authentication services, authorization services, or other predefined infrastructure services (**column 7, line 53-column 8, line 55 and column 2, lines 23-66**).

Claim Rejections - 35 USC § 103

26. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

27. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Aggarwal et al (U.S. Patent No. 6,415,318) in view of Chang Liu (hereinafter Liu) “Platform-Independent and Tool-Neutral Test Descriptions for Automated Software Testing”, 2000, ACM, pages 713-715.

28. As per claim 5, Aggarwal et al fail to teach a method wherein the service bus is the E-speak service bus.

29. However, Liu teach the use of E-speak technology (**Abstract**). It would have been obvious to one of the ordinary skill in the art at the time of the applicant's invention to combine the teachings of Aggarwal et al and Liu to create a method that uses a bus with E-speak

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technology because doing so would reduce the time and effort to produce e-services with a common operating environment in which to conduct business.

Response to Arguments

30. Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. Aggarwal et al (U.S. Publication No. 2002/0178230)
- b. Massarani (U.S. Patent No. 6,393,484)
- c. Butman (U.S. Patent No. 5,884,035)
- d. Olsen et al (U.S. Patent No. 6,519,642).


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ramsey Refai whose telephone number is (571) 272-3975. The examiner can normally be reached on M-F 8:30 - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on (571) 272-3964. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ramsey Refai
Examiner
Art Unit 2154


JOHN FOLLANSBEE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

RR
May 9, 2005